146395

SEP 15 1983

Mr. Peter Shagena
Chemical Recovery Systems, Inc.
38345 Van Born Road
Romulus, Michigan 48174

Re: Chemical Recovery Systems
Elyria, Site Inspection

Dear Mr. Shagena:

The purpose of this letter is to summarize the findings of our September 1, 1983, visual site inspection of the Chemical Recovery Systems, Inc., site in Elyria, Ohio, and will confirm our discussions of that afternoon. As you know the inspection was conducted in accordance with Section V.A.1. of the Consent Decree, which has been lodged with the United States District Court, Northern District of Ohio, Eastern Division.

As a result of our inspection, we agreed that those areas designated as D.S. on the enclosed site map, required removal of the top layer of soil prior to grading and seeding. The basis for this decision was the fact that no vegetation existed in those areas as it did in other areas of the site. Also, small areas of what appeared to be residue from spilled drum contents, were observed in the drum storage areas. Your approach of scraping the surface of the entire site, for removal of the top layer of soil and other miscellaneous debris is acceptable and will satisfy the need to have such soils removed.

I understand that this work and the subsequent grading and seeding of the site is scheduled for completion by September 15, 1983. If you have any questions, please contact myself (312/886-3010) or Mr. Jonathan McPhee (312/886-6719) or at the above address.

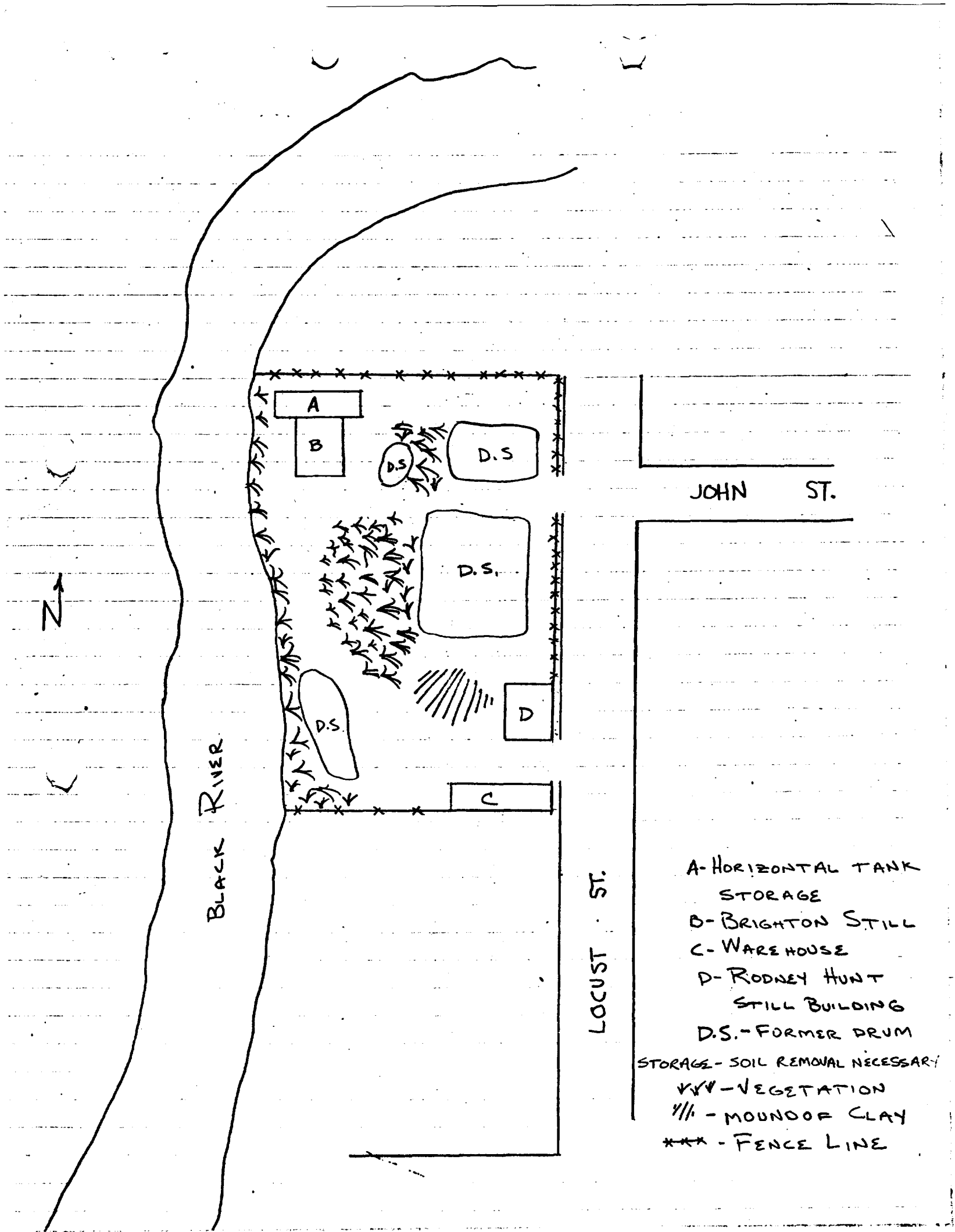
Sincerely,

Gregg Kulma
On-Scene Coordinator

Enclosure

cc: Jonathan McPhee
E. Soderlaan
R. Cutala, Assistant U.S. Attorney

G.KULMA:lrl:RRSI:9/14/83 Disk 3 #11


A
B
D.S
D.S
D.S.
D.S.
D
C
JOHN ST.
LOCUST ST.
BLACK RIVER
N
A- HORIZONTAL TANK STORAGE
B- BRIGHTON STILL
C- WAREHOUSE
D- RODNEY HUNT STILL BUILDING
D.S.- FORMER DRUM STORAGE- SOIL REMOVAL NECESSARY
VVV - VEGETATION
/// - MOUNDED CLAY
*** - FENCE LINE

SDMS US EPA REGION V

COLOR-RESOLUTION - 2

IMAGERY INSERT FORM

The following page(s) of this document include color or resolution variations. Unless otherwise noted, these pages are available in monochrome. The original document is available for viewing at the Superfund Records Center.

SITE NAME	CHEMICAL RECOVERY
DOC ID #	146395
DESCRIPTION OF ITEM(S)	FIELD PHOTOGRAPHS
PRP	RMD - CHEMICAL RECOVERY
DOCUMENT VARIATION	_X_ COLOR **OR** ___ RESOLUTION
DATE OF ITEM(S)	9/1/83
NO. OF ITEMS	6
PHASE	SAS
OPERABLE UNITS	
LOCATION	Box #__ Folder #___ Subsection ____
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___Original ___ Update # ___ Volume ___ of ___
COMMENT(S)	

FIELD PHOTOGRAPHY LOG SHEET

DATE SEPTEMBER 1, 1983

TIME 2:03 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW (SW) WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80's

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)

DESCRIPTION: EXCAVATION AROUND OLD STILL BORING AS SHOT FROM WALL OF FORMER TANK STORAGE

DATE SEPTEMBER

TIME 2:07 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80's

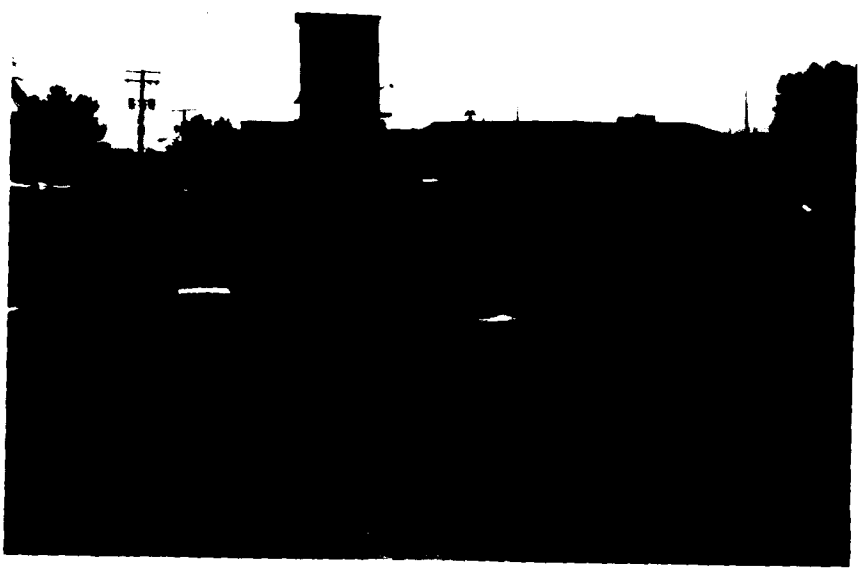
SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)



DESCRIPTION: FORMER BARREL STORAGE AREA BY WELL #344

FIELD PHOTOGRAPHY LOG SHEET

DATE SEPTEMBER 1, 1983

TIME 2:09 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S (SSW) SW WSW
W WNW NW NNW

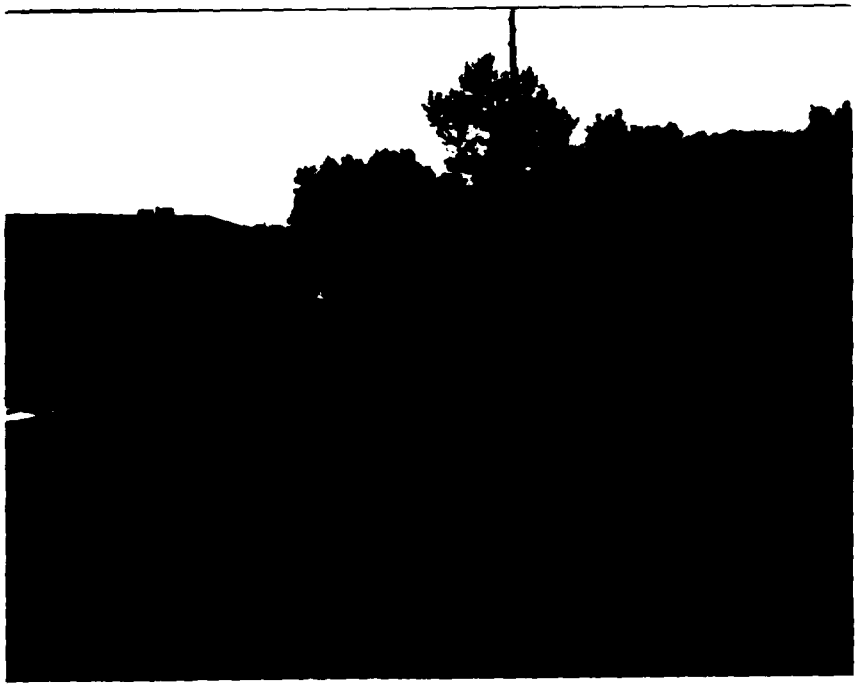
WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:
JEROME D. OSKVAREK

SAMPLE ID# (if applicable)



DESCRIPTION: FORMER BARREL STORAGE AREAS AS SHOT FROM NORTHEAST CORNER OF SITE

DATE SEPTEMBER 1, 1983

TIME 2:10 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW (SW) WSW
W WNW NW NNW

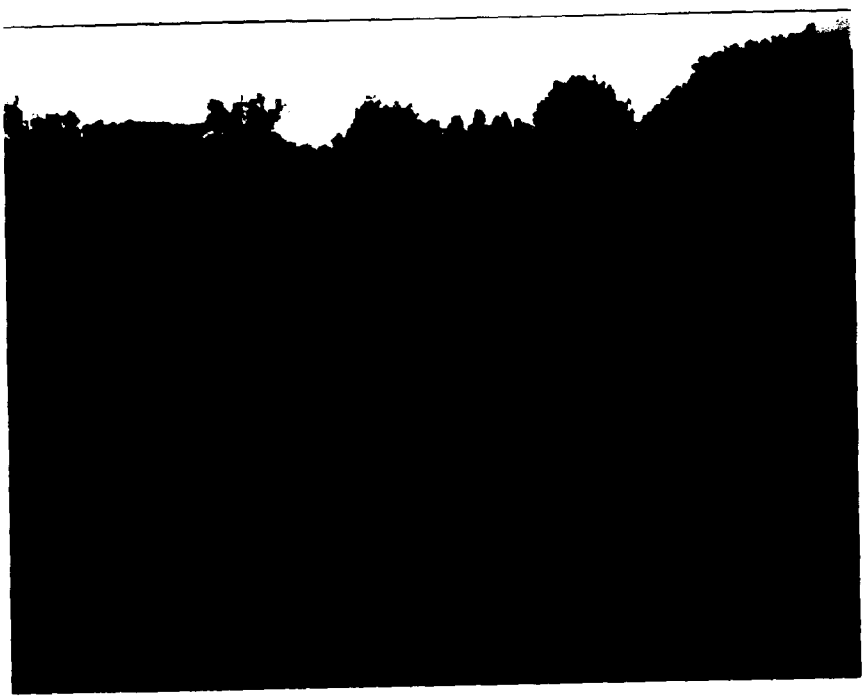
WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:
JEROME D. OSKVAREK

SAMPLE ID# (if applicable)



DESCRIPTION: FORMER BARREL STORAGE AREAS AS SHOT FROM NORTHEAST CORNER OF SITE

FIELD PHOTOGRAPHY LOG SHEET

DATE SEPTEMBER 1, 1983

TIME 2:12 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W (WNW) NW NNW

WEATHER SUNNY, UPPER 80'S

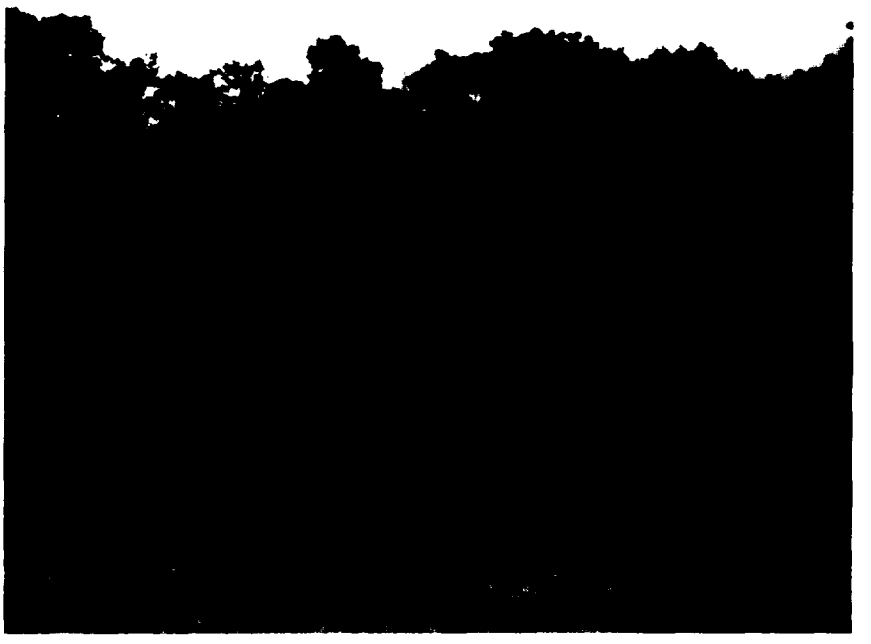
SITE CHEMICAL RECOVERY SYSTEM

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)



DESCRIPTION: EXCAVATOR WORKING AROUND FORMER STILL BUILDING

DATE SEPTEMBER 1, 1983

TIME 2:15 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80'S

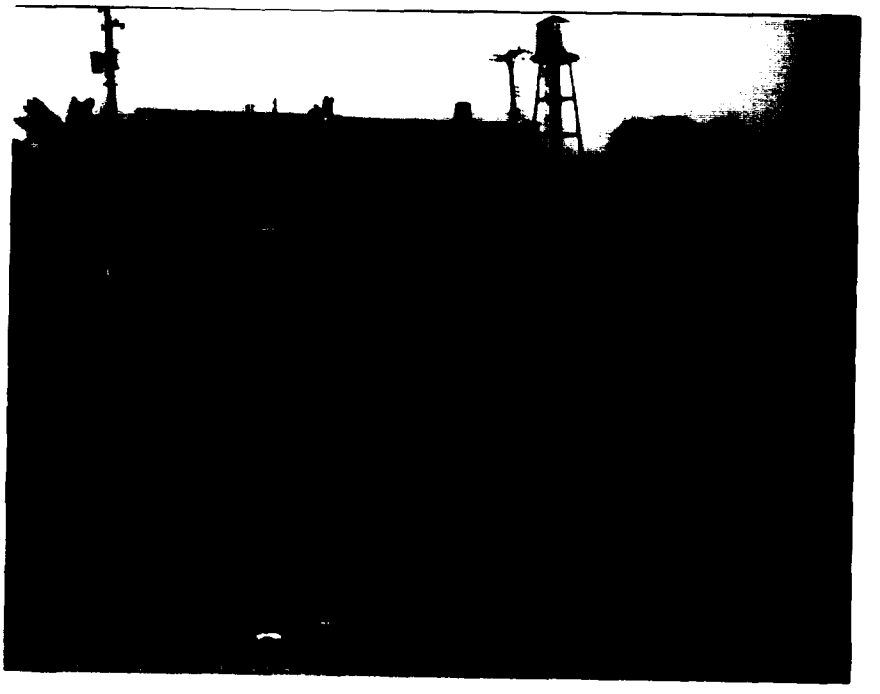
SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)



DESCRIPTION: BARREL STORAGE AREA ON LOWER HALF OF SITE, SHOT TOWARD HARSHAW, BACK IS TO EXCAVATOR WORKING AROUND STILL

FIELD PHOTOGRAPHY LOG SHEET

DATE SEPTEMBER 1, 1983

TIME 2:37 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)

DESCRIPTION: EXCAVATED TRENCH ALONG S. SOUTH SIDE OF STILL BUILDING

DATE SEPTEMBER 1, 1983

TIME 2:37 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)

DESCRIPTION: SAME AS ABOVE

FIELD PHOTOGRAPHY LOG SHEET

DATE SEPTEMBER 1, 1983

TIME 3:19 A.M. (P.M.)

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)

DESCRIPTION: EXCAVATED TRENCH ON EAST SIDE OF STILL BUILDING

DATE SEPTEMBER 1, 1983

TIME 3:20 A.M. (P.M.)

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:

JEROME D. OSKVAREK

SAMPLE ID# (if applicable)

DESCRIPTION: EXCAVATED TRENCH ON WEST SIDE OF STILL BUILDING

DATE SEPTEMBER 1, 1983

TIME 3:27 A.M (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W (WNW) NW NNW

WEATHER SUNNY, UPPER 80'S

SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:
JEROME D. OSKWAREK

SAMPLE ID# (if applicable)

DESCRIPTION: FORMER BARREL STORAGE AREA NEAR B5 IN SOUTHWEST AREA OF SITE

DATE SEPTEMBER 1, 1983

TIME 3:30 A.M (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER SUNNY, UPPER 80'S

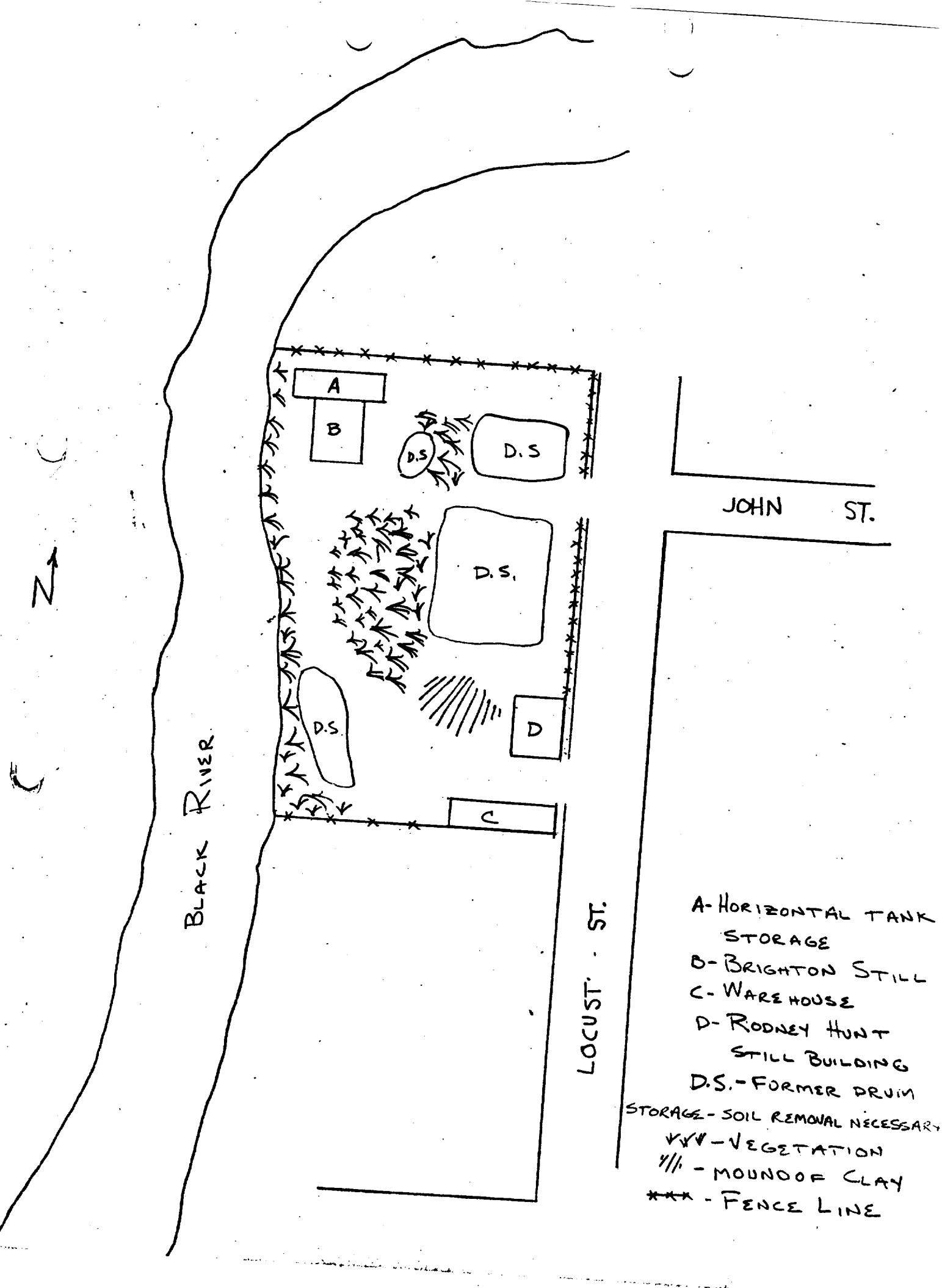
SITE CHEMICAL RECOVERY SYSTEMS

TDD# 8308-08

PHOTOGRAPHED BY:
JEROME D. OSKWAREK

SAMPLE ID# (if applicable)

DESCRIPTION: GENERAL STORAGE AREA IN EAST CENTRAL PART OF SITE


A
B
D.S
D.S
D.S.
D.S
D
C
JOHN ST.
LOCUST ST.
BLACK RIVER
N
A- HORIZONTAL TANK STORAGE
B- BRIGHTON STILL
C- WAREHOUSE
D- RODNEY HUNT STILL BUILDING
D.S.- FORMER DRUM STORAGE - SOIL REMOVAL NECESSARY
- VEGETATION
- MOUND OF CLAY
- FENCE LINE

STATE OF MICHIGAN

WASTE DISPOSAL MANIFEST

Act 64 Waste (HAZARDOUS) ☐ Act 136 Waste ☐ Other

MI0134330

Rev. 8/81

IDENTIFICATION

Generator's Name	Primary Transporter's Name	Treatment, Storage or Disposal Facility
CHEMICAL RECOVERY SYSTEMS	WOLVERINE DISPOSAL	WAYNE DISPOSAL
Site Address	**Transporters Address**	**Facility Address**
142 LOCUST ST ELYRIA OHIO	P.O BOX 8-23 YPSILANTI MICHIGAN	49350 N SERVICE DR BELLEVILLE, MICHIGAN
Phone Number	**Phone Number**	**Phone Number**
( )	(313) 481-0020	(313) 697 0200
Generator's Site EPA I.D. Number	**Transporter's EPA I.D. Number**	**Facility Site EPA I.D. Number**
OHD-057090810	MID980614021	MID980906331

If more than one Transporter is to be utilized, give the Name and EPA I.D. Number of each:

GENERATOR COMPLETES — WASTE INFORMATION

LOT NO.	U.S. D.O.T. Shipping Name (or common name if there is no D.O.T. shipping name).	D.O.T. Hazard Class	U.N./N.A. No.	Haz. Class Code	Container No.	Container Type	Form: Solid	Form: Liquid	Form: Gas	Form: Sludge	Total Weight or Volume	Units	Hazardous or Liquid Waste
1.	HAZARDOUS WASTE SOLID	ORM-E	NA9189	IB	1	CD	X				20	yards	10 DB
2.													
3.													
4.													
5.													
6.													

COMMENTS

Include Safety precautions and special handling instructions.

CONTAMINATED SOIL FROM SOLVENT RECYCLING OPERATION

GENERATOR CERTIFICATION: I certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and U.S. EPA. I further certify that the information contained on the manifest is factual. I understand that the failure to accurately report all information requested by the manifest constitutes a violation of 1979 PA64 and/or 1969 PA136. I further understand that this manifest may be used in administrative and court proceedings.

Generator Signature ①

Date MO. DAY YEAR

TRANSPORTER COMPLETES

HAULER'S CERTIFICATION: I certify acceptance of the above identified wastes for transportation. I further certify that I shall deliver the hazardous wastes, together with this manifest, only to the destination specified by the generator on this manifest. I understand that this manifest can be used in administrative and court proceedings.

Transporter Vehicle I.D. No. No. 1 40A

Subsequent Transporter Vehicle I.D. No's

Transporter Signature ②

Subsequent transporter(s) signature(s) ③

Date(s) Received

If the shipment cannot be delivered, describe the reasons for non-delivery.

TSDF COMPLETES

TSDF CERTIFICATION: I certify receipt at this facility of the above identified wastes and that this facility is licensed to accept those wastes. I also certify that the wastes were accompanied by a manifest properly certified by both the generator and hauler and that this facility is the destination indicated on the manifest. I understand that this manifest can be used in administrative and court proceedings.

TSDF Signature ④

Facility Site EPA I.D. Number

☐ Accepted ☐ Rejected

Date Received

Describe any significant discrepancies between manifest and shipment.

Was a Surcharge Assessed? ☐ Yes ☐ No

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 800—292-4706 OR OUT-OF-STATE AT 517—373-7660 AND THE NATIONAL RESPONSE CENTER AT 800—424-8802 24 HOURS PER DAY.

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415
International Specialists in the Environmental Sciences

DATE: October 26, 1982

TO: Greg Kulma, Remedial Response Section

FROM: Joe Petrilli, Field Investigation Team Leader Joe

SUBJECT: Attached memorandum from Ron St. John to Joe Petrilli

RE: Comments made by Greg Kulma and Kevin C. Garrahan on the Hydrogeologic and Extent of Contamination Study for Chemical Recovery Systems

After you review the attached memorandum, I would suggest a meeting among the three of us to discuss Mr. St. John's response in more detail. This will also give us an opportunity to talk about the peer review process, and how to implement report modifications.

Please contact me when you have finifshed your review of the FIT comments and are ready to discuss them.

cc: Ron St. John

TO: Joe Petrilli, FITL

FROM: Ron St. John, author of the CRS report Ecology & Environment, Inc.

SUBJECT: Rebuttal to comments made by Gregg Kulma and Kevin G. Garrahan on the Hydrogeologic and Extent of Contamination Study for Chemical Recovery Systems.

DATE: October 15, 1982

I have read the comments made by Mr. Kulma and have the following reply to them:

1) I don't understand this comment as a review of Table 3 certainly shows adequate evidence of groundwater contamination.

2) The groundwater elevation at completion, of 694.29, is incorrect. No elevation should have been shown, as depicted in cross-section A-A' on Plate 2 groundwater was not encountered.

3) I agree.

4) I agree.

My reply to Mr. Garrahan's comments are:

page 2) The description of the sewer line on page four, should read: "bell and spigot" rather than "bell and spicket." On the other hand, the explanation of the sewers' function seems sufficient.

page 5) He needs to read these statements more carefully; they are correct. On page four, in the last sentence of the first paragraph under Site Geology it reads: twenty feet of <u>fill</u> thickness. On page twenty-five it states: twenty-eight feet of <u>unconsolidated materials</u>.

page 16) Pertaining to comments on my overestimation of precipitation infiltration: Mr. Garrahan first tells me that his computer model estimate of thirty-five to forty percent is more accurate than my fifty percent, then, he contradicts himself by saying that his figure may increase due to sub-surface lateral entry of precipitation from off-site areas.

Pertaining to his comments on using the entire stream bottom as the area perpendicular to flow, in the flow rate calculation:

1) The example figure he gives does not resemble the conditions at the site.

2) The Black River is not the major discharge area for groundwater.

3) Besides these facts, the thickness that would be used to calculate the flow rate through the fill would be the saturated thickness <u>not</u> the maximum thickness of fill (28 feet).

If needed, site specific examples can be given.

page 18) These are valid additions.

RSJ: rp

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

OCT 1 2198

DATE: 10/8/82

SUBJECT: Review Comments Chemical Recovery Systems, Inc.
Hydrogeologic and Extent of Contamination Study

FROM: Gregg Kulma
Remedial Response Section I

TO: Rod Bloese
Ecology & Environment, Inc.

I have attached a copy of review comments on the subject report. In accordance with the peer review process, these comments must be addressed before this report can be released to the public. After you have had a chance to review these comments, it probably will be appropriate to have a discussion about how to address them. Changes will either have to be made in the report or justify reasons for not making changes.

Attachment

cc: Marian Neudel
Mike Kosakowski, w/attachment

EPA FORM 1320-6 (REV 3-76)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: SEP 29 1992

OCT 9 1992

SUBJECT: Review Comments Chemical Recovery Systems, Incorporated Hydrogeologic and Extent of Contamination Study

FROM: Gregg Kulma, On-Scene Coordinator
Remedial Response Section I

TO: Marian Neudel, General Attorney
Water Enforcement

I have reviewed the subject report and have the following comments:

1. Page 2, Paragraph 4 and page 4, Paragraph 1 - statements are made that groundwater is contaminated without any supporting evidence;

2. Page 5, Paragraph 3, Sentence 3 - sample 5 is below the water table. This is based on the drilling log for boring number B-8;

3. Page 18, Paragraph 1, Last sentence - I suggest that the phrase "by a considerable margin" be deleted since there are no calculations which establish what the flow rates are;

4. Page 25, Conclusion 6 - the word significant should be deleted for the same reasoning in comment 3.

I have also attached a copy of the review comments from Kevin Garrahan.

EPA FORM 1320-6 (REV 3-76)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

SUBJECT: Peer Review of E & E Hydrogeological Study of Chemical Recovery Systems - Elyria, Ohio

FROM: Kevin G. Garrahan, Environmental Engineer
Compliance Branch

TO: Michael Kosakowski, Acting Chief
Compliance Branch

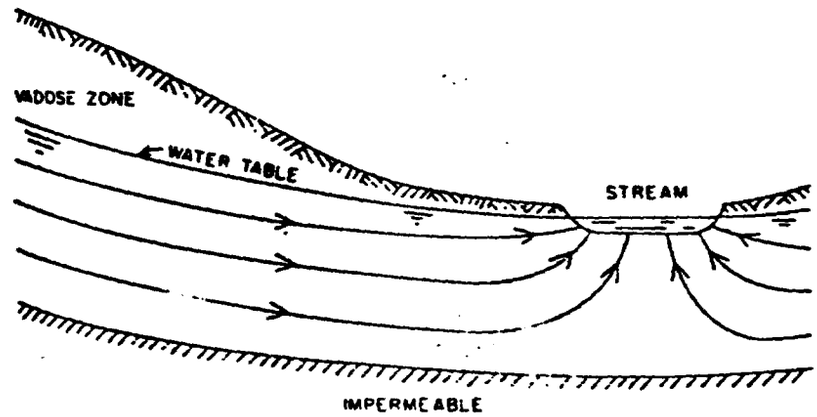
I have reviewed the E & E report and offer the following comments:

Page	Comment
2	The description of the "sewer line" beneath the site is confusing. Is it a bell and spigot storm drain to collect surface storm-water run-off from Locust Street? If so, call it such.
5	The maximum thickness of unconsolidated fill is stated to be 20 feet. On page 25, conclusion #2, the maximum thickness is stated as 28
16	The calculations of leachate generation is based on two simplifying assumptions: (1) 50% of precipitation infiltrates and leaches, (2) contaminated site area of 2 acres. The 50% proportion appears high. Hydrologic simulation using the Perrier & Gibson computer model estimates percolation at about 35-40 percent. The calculation also ignores the sub-surface lateral entry of precipittion from off-site areas.

precipitation

RECEIVED
SEP 1 1982

16 Calculations for groundwater flow are based on an assigned permeability value and the river depth of eight feet. The river depth should not be used to calculate the cross-section area normal to the flow since the flow lines converge to the sides and bottom of the stream (see sketch below).



Since the characteristics of the underlying sandstone aquifer are not known, then perhaps it would be best to calculate the flow of groundwater through the layer of unconsolidated fill. In this case, the maximum thichness of fill (28 feet) would be used in Darcy's Equation. Computation of the equation would yield the maximum flow of contaminated groundwater through the site.

18 Additional causes for the large difference between leachate generation and the flow of groundwater are: (1) the estimated proportion of infiltrating precipitation (50)% is too high, (2) seasonal variations of groundwater flow are not accounted for.

Plates The plates should show the flow direction of the Black River. Legends should also be labelled.

c.c. Leon Acierto, Region V